



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/829,291

04/22/2004

Masayasu Senda

12065-0013

7232

22902

7590

10/02/2006

CLARK & BRODY

1090 VERMONT AVENUE, NW

SUITE 250

WASHINGTON, DC 20005

EXAMINER

KOSLOW, CAROL M

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/829,291	SENDA ET AL.	
	Examiner	Art Unit	
	C. Melissa Koslow	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/4/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 is/are allowed.
- 6) ☒ Claim(s) 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1755

This action is in response to applicants' amendment of 4 August 2006. The amendments to the abstract and specification have overcome the objections. The amendments to the claims have overcome the art rejection. The 35 U.S.C. 112, first paragraph is modified in view of the amendments to the claims. Applicant's arguments with respect to the 35 U.S.C. 112, first paragraph rejection has been fully considered but they are not persuasive.

Claims 8 and 9 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for molded products produced by the claimed test method from a mixture of 15-40 wt% of a fine strontium ferrite powder having the formula $\text{SrO} \cdot n\text{Fe}_2\text{O}_3$, where n is 5.5 or 5.75, having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a coarse strontium ferrite powder having the formula $\text{SrO} \cdot n\text{Fe}_2\text{O}_3$, where n is 5.5 or 5.75, having an average particle size of greater than 2.5 microns up to 5 microns where the coarse powder is produced by hammer milling and the fine powder is produced by hammer milling and wet milling and having the claimed properties, does not reasonably provide enablement for all molded articles produced from a mixture of 15-40 wt% of a strontium including ferrite powder having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a strontium including ferrite powder having an average particle size of greater than 2.5 microns up to 5 microns. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Claim 10 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a mixture of 15-40 wt% of a fine strontium ferrite powder having the formula $\text{SrO} \cdot n\text{Fe}_2\text{O}_3$, where n is 5.5 or 5.75, having an average particle size of greater than 0.5

Art Unit: 1755

micron up to 1 micron and 60-85 wt% of a coarse strontium ferrite powder having the formula $\text{SrO} \cdot n\text{Fe}_2\text{O}_3$, where n is 5.5 or 5.75, having an average particle size of greater than 2.5 microns up to 5 microns where the coarse powder is produced by hammer milling and the fine power is produced by hammer milling and wet milling, does not reasonably provide enablement for all mixtures of 15-40 wt% of a strontium including ferrite powder having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a strontium including ferrite powder having an average particle size of greater than 2.5 microns up to 5 microns having a decrease in coercive force of not greater than 600 Oe between the powder and the product produced by the claimed molding process. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Claims 11 and 12 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a bond magnet produced by the method of claim 12 from a mixture of 15-40 wt% of a fine strontium ferrite powder having the formula $\text{SrO} \cdot n\text{Fe}_2\text{O}_3$, where n is 5.5 or 5.75, having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a coarse strontium ferrite powder having the formula $\text{SrO} \cdot n\text{Fe}_2\text{O}_3$, where n is 5.5 or 5.75, having an average particle size of greater than 2.5 microns up to 5 microns where the coarse powder is produced by hammer milling and the fine power is produced by hammer milling and wet milling having the claimed decrease, does not reasonably provide enablement for all bonded magnets comprising of 15-40 wt% of a strontium including ferrite powder having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a strontium including ferrite powder having an average particle size of greater than 2.5 microns up to 5

Art Unit: 1755

microns having a decrease in coercive force of not greater than 600 Oe between the powder and the product produced by the claimed molding process. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Claim 13 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for suppressing a decline in coercive force of a bonded magnet by using a mixture of 15-40 wt% of a fine strontium ferrite powder having the formula $\text{SrO} \cdot n\text{Fe}_2\text{O}_3$, where n is 5.5 or 5.75, having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a coarse strontium ferrite powder having the formula $\text{SrO} \cdot n\text{Fe}_2\text{O}_3$, where n is 5.5 or 5.75, having an average particle size of greater than 2.5 microns up to 5 microns where the coarse powder is produced by hammer milling and the fine powder is produced by hammer milling and wet milling as the ferrite in the magnet, does not reasonably provide enablement for all mixtures of 15-40 wt% of a strontium including ferrite powder having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a strontium including ferrite powder having an average particle size of greater than 2.5 microns up to 5 microns having a decrease in coercive force of not greater than 600 Oe between the powder and the product produced by the claimed molding process. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

U.S. patents 4,278,556; 4,675,170; 6,284,150 and 6,478,982 all show that the coercivity of strontium containing ferrite powders depends on the composition of the ferrite and how the ferrite powders are treated. Thus it cannot be assumed that all strontium containing ferrite

Art Unit: 1755

compositions treated by any method will have the properties of claim 10 and 13 or will produce molded products or bonded magnets having the claimed properties even if they have the claimed particle size distributions. The specification only teaches two ferrite compositions and one method of treating the disclosed ferrite compositions. Such a limited disclosure does not support the weight of the instant claims.

The amendments to the claims did not overcome this rejection with respect to claims 8-13.

Claims 8 and 9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 8 and 9 are new matter. Page 2, lines 22-26 teaches the molded product obtained by the molding test method has a coercivity of 3200 Oe and a residual flux density of 2980 G or greater. This teaching does not support new claims 8 and 9 which are to a molded product having a coercivity of 3200 Oe and a residual flux density of 2980 G or greater comprising a mixture of 15-40 wt% of a strontium including ferrite powder having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a strontium including ferrite powder having an average particle size of greater than 2.5 microns up to 5 microns and produced by any known molding method.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1755

Claim 12 is indefinite since it depends upon itself.

Claim 7 is allowable over the cited art of record.

The cited art of record does not teach a mixture of 15-40 wt% of a strontium including ferrite powder having an average particle size of greater than 0.5 micron up to 1 micron and 60-85 wt% of a strontium including ferrite powder having an average particle size of greater than 2.5 microns up to 5 microns. U.S. patents 3,677,947 and 7,025,946 are cited as of interest since they teach mixtures of o a strontium including ferrite powder having at least tow different particle size ranges, but the two size ranges are outside the claimed ranges.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

Art Unit: 1755

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk
September 29, 2006



C. Melissa Koslow
Primary Examiner
Tech. Center 1700